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Report Highlights:
Sections I, III and V have been updated.
The Nigerian Biosafety Committee was established in 2000 to oversee the implementation of the national biotechnology program. The Committee only met for the first time in October 2005 to consider the application for field-testing of cassava clones developed for resistance to cassava mosaic disease. The application by the Danforth Plant Science Center, St. Louis has been withdrawn because of a breakdown in the resistance. The GON has indicated the need to fast track the creation of an enabling environment for the development of biotechnology in Nigeria.

Includes PSD Changes: No
Includes Trade Matrix: No
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Executive Summary

Nigeria, Africa's most populous nation (130 million), is a food deficit country. Formally a net food exporter, Nigeria's subsistence agriculture can no longer supply the needs of its growing population. According to trade sources, Nigeria imported about $3 billion of agricultural commodities in 2005. In CY2005, U.S. agricultural exports to Nigeria reached $553 million. Nigeria is largely a bulk commodity market with the U.S. having a major share of the wheat market. Opportunities also exist for soybean products, tallow, rice and high value products.

The Government of Nigeria (GON) has appeared to be supportive of biotechnology. Many Nigerians believe that the nation needs to align itself with biotechnology in order not to miss out on the rewards of another revolution. In meetings such as the Science and Technology Forum in Burkina Faso in June 2005, Nigeria was quite vocal in support of biotechnology. Despite this receptiveness, in actuality, the country appears to have made very little progress over the last five years, especially in providing the needed regulatory environment. However, in a recent meeting of the AgAttache with the Minister of Environment, the Minister restated the commitment of the GON to fast tract the process of creating an enabling regulatory framework for the development of biotechnology in the country.

At present, Nigeria has no laws governing modern agricultural biotechnology and biosafety. The Federal Ministry of Environment, which has responsibility for biosafety regulations, has prepared a draft biosafety legislation. The documents would be presented to the National Council on Environment (the highest decision making body on environmental issues) at its annual meeting later in the year. After approval by the Council on Environment, the documents would be forwarded to the National Executive Council of Ministers for ratification and forwarding to Congress. The draft bill generally portrays products of biotechnology as safe for animal and human consumption, it however, advocates strict adherence to the 'precautionary principle' and mandatory labeling of all products of agricultural biotechnology to protect "consumers right to know."

In 2000, the GON established a 15-man National Biosafety Committee (NBC) to oversee the implementation of the national Biotechnology Program. The committee met for the first time on October 10, 2005 to consider an application for field-testing of some cassava clones developed for resistance to cassava mosaic disease at the Donald Danforth Plant Science Center, St. Louis. The Committee constituted a technical sub-committee on agriculture, which reviewed the cassava application. The sub-committee recommended to the NBC that confined field-testing of the bio-engineered cassava clones be allowed. Nigeria's biosafety guidelines, which became operational in 2001 contains provisions for field-testing of approved bio-engineered crop. However, while the approval process was in progress, the application for the field-testing of bio-engineered cassava with resistance to cassava mosaic disease has been withdrawn because of a breakdown of its resistance. The withdrawal has greatly slowed down the process of field-testing of bio-engineered crop in Nigeria.

SECTION II. BIOTECHNOLOGY TRADE AND PRODUCTION

A. Commercial Production of Biotechnology Crops

Nigeria does not currently produce any biotechnology crops commercially. Capacity exists at the International Institute for Tropical Agriculture (IITA) and the Sheda Science and Technology Complex (SHESTCO) to conduct and apply biotechnology research. Scientists in Nigeria are assessing genetic diversity in the major crops grown in Nigeria. With transgenic insect-resistant cotton in its third year of field trials in Burkina Faso, Nigerian cotton growers have indicated strong interest in conducting field trials.

B. Biotechnology Crops Under Development

There is no biotechnology crop under development in Nigeria that will be on the market in the coming year. Sustained research using modern agricultural biotechnology methods in Nigeria is being conducted at the IITA. The institute is doing preliminary work on bio-engineered cowpea. IITA also collaborates with the National Root Crops Research Institute (NRCRI) on biotech cassava research.

C. Imports of Biotechnology Crops/Products

Agricultural products such as soybeans, soybean meal, soybean oil and processed food are freely imported from the U.S., EU, Brazil and Argentina and may contain biotech ingredients. Corn was imported from the U.S. until the recent ban implemented by the GON to protect local producers.

D. Food Aid

Nigeria is a food aid recipient. Rice, soybean meal and skim milk powder are commodities that have been monetized under USDA food aid programs in the past few years.

E. Production of Biotechnology Crops Developed Outside the United States

At Present, Nigeria does not produce biotechnology crops of any origin

SECTION III. BIOTECHNOLOGY POLICY

A. Regulatory Framework for Agricultural Biotechnology

i. Responsible institutions involved in agricultural biotechnology in Nigeria:

National Focal Point--Federal Ministry of Environment
National Biosafety Authority (NBA) -Proposed
The National Biosafety Committee (NBC)
National Biosafety Technical Sub-Committee
Institutional Biosafety Committees
National Biotechnology Development Agency (NBDA)

The Federal Ministry of Environment is the national focal point on Biosafety in Nigeria. This Ministry is the GON's liaison with the Secretariat of the Convention on Biological Biodiversity for administrative functions required under the Cartegena Protocol on Biosafety. The National Focal point is responsible for all correspondences with importers, exporters and applicants on movement of products of modern biotechnology. Pending the passage of the National Biosafety Bill, the Minister of Environment acts for National Biosafety Agency (NBA). The Ministry of Environment is proposing the establishment of an independent NBA.

The Ministry of Environment has developed a National Biosafety Framework (NBF) to provide guidance on the implementation of Nigeria's Biotechnology program. This framework is a combination of policy, legal, administrative and technical instruments that will regulate all biotechnological work to minimize or eliminate any potential hazards. It is also intended to ensure the safe transfer, handling and use of biotech materials that may have adverse effects on the conservation and sustainable use of biological diversity, taking into account risks to human health. The Framework is meant to provide a one-stop clearinghouse in the NBC.

The Framework also require the establishment of Institutional Biosafety Committees (IBC) by all institutions in Nigeria, both private and public (e.g. research institutes, universities, international research centers etc.), which plan to undertake biotechnology research and/or development. The IBC shall consult and seek approvals from the NBC and implement recommendations from NBC among others.

ii) Role and Membership of the Biosafety Committee (NBC)

The NBC serves as the Competent National Authority for biosafety in Nigeria. The NBC is responsible for the safe management of biotechnology activities, including research, development, introduction and the use of LMOs/GMOs. The Committee has 15 members drawn from the Ministries of 1) Agriculture 2) Science & Technology, 3) Environment, 4) Commerce, 5) Education, 6) Health (NAFDAC), 7) Industry, 8) Foreign Affairs, 9) Internal Affairs (Nigerian Customs Service), 10) Justice 11) NACCIMA/Organised Private Sector, 12) a Biologist, 13) a Physical Scientist, 14) a Social Scientist and 15) a Representative of NGOs distinguished in environmental/conservation matters. The NBC is required to review all applications for the release of products of bioengineering and make recommendations to the Minister of Environment on whether or not to allow such products. The NBC oversees the implementation of the National Biotechnology Program, consistent with the Biosafety Law.

The NBC has also established National Biosafety Technical Sub-committees (NBTS) to focus on sectoral interests such as agriculture, health, industry and the environment. The sub-committees review proposals for research and recommend the conditions under which experiments should be conducted. They are to provide technical advice to the NBC and contribute to its functions in relation to contained use, field trials, release and placement on the market.

All applications for import, field trials, transit and contained use must be routed through the registrar of the NBA. The NBC will meet and direct the relevant NBTS to carry out risk assessment and ensure participation of all relevant stakeholders. Findings of the NBTS are submitted to the NBC. The NBC takes a decision, which is then conveyed to the applicant by the Registrar of the NBA. A license to carry out event is issued by the Registrar of NBA.

The NBDA was established in 2001 in the Ministry of Science and Technology to promote the development of biotechnology in Nigeria. The agency is active in creating awareness for products of biotechnology. NBDA conducts regular workshops for the major stakeholders in biotechnology.

iii) Political factors

The Nigerian government appreciates the potential of biotechnology to improve agricultural productivity. The national biotechnology policy document states that the GON “supports biotechnology because of its immense potential to more rapidly contribute to sustainable food security and economic growth”. President Obasanjo was also quoted as saying that “ as a matter of priority government will initiate appropriate steps in the area of biotechnology and facilitate the effective utilization of this new technology for the benefit of our people.” The government established the National Biotechnology Development Agency (NBDA), approved the National Biosafety Guidelines in 2001 and is in the process of establishing the Nigeria Biosafety Law. There are mixed opinions from government officials regarding the progress of Nigeria’s biosafety measures.

B. Approval of Biotechnology Crops

No law exists to approve biotechnology crops for food, processing and feed.

C. Field Testing

In 2001, the GON approved the National Biosafety Guidelines. The guidelines have a provision for field-testing bio-engineered crops. So far, no bio-engineered crop variety has been approved for field-testing. The first application for field trials to the National Biosafety Committee (NBC) to introduce the first LMO was for virus resistant cassava variety developed at the Danforth. The application was withdrawn because of a breakdown of its resistance. If the application were approved, it would have provided a unique opportunity for local regulators and scientists to gain familiarity with biotech crops and encourage development of workable Biosafety systems.

D. Stacked events

The NBC does not require additional approval for stacked events

E. Coexistence

Nigeria's proposed biosafety bill is silent on co-coexistence. However, there are provisions for monitoring in the draft bill. The relevant portion of the bill states, "for the purpose of biosafety, monitoring shall be used as a tool to ensure that the concerns expressed by stakeholders are addressed, ensure compliance with the terms of approval, confirm claims and trace the fate of LMOs/GMOs.)

F. Labeling

The National Agency for Food and Drug Administration and Control (NAFDAC) is the GON's regulatory body responsible for food product manufacturing, importation, advertisement and distribution in Nigeria. The NAFDAC was established to protect and promote public health by ensuring the wholesomeness, quality, and safety of food and drugs consumed in Nigeria. NAFDAC regulations require food labeling to be informative and accurate. The minimum labeling requirements include net content, specifying essential ingredients in metric weight for solids, semi-solids and aerosols, and metric volume for liquids. Ingredients must be listed by their common names in order of their prominence by weight. The regulations are being strictly enforced, but they are not specific to products of biotechnology.

G. Biosafety Protocol

The GON signed and ratified the Convention on Biological Diversity in 1994 and the Cartegena Protocol on Biosafety in November 2002. Nigeria, having signed and ratified the protocol is now under obligation to implement it. The implementation of the protocol is slow and has had no effect on trade.

H. Biotechnology-Related Trade Barriers

We are not aware of any biotechnology-related trade barriers affecting U.S. exports to Nigeria.

I. Pending Legislation

There is no pending legislation on agricultural biotechnology in Nigeria. The Ministry of Environment has prepared a draft biosafety bill. The draft bill advocates mandatory labeling of all products of agricultural biotechnology to protect "consumers right to know." If the bill were enforced once passed, it would likely affect exports of U.S. food products to Nigeria.

J. Technology Fees

Nigeria does not any bio-engineered crop; neither does it have legislation in place to collect technology fees.

SECTION IV. MARKETING ISSUES

A. Market Acceptance

Generally, most Nigerians are not aware of products of modern agricultural biotechnology and the issues involved. Information and discussions on modern biotechnology have been undertaken largely among GON officials, scientists and researchers. Nigerian farmers and the general public will need to be educated about the technology.

Wheat importers in Nigeria favor the precautionary approach to biotechnology. They have learned about bio-engineered food products primarily from the U.S. - EU debate over biotechnology. Overall, Nigerian wheat importers have expressed the opinion that the U.S. should not introduce bio-engineered wheat into the market until all long-term health concerns are resolved. In MY2005/06, Nigeria became largest export market for U.S. wheat, with exports reaching 3.1 million tons.

B. Focus Group Survey

The results of a focus group survey on the attitude of the public to biotechnology revealed that about 40 percent of respondents would not mind consuming bio-engineered food products. Many respondents especially among those with little education were ignorant of biotechnology and its potential usefulness. While respondents did express concern about the long-term health effects of consuming such products, these concerns seem to be overshadowed by their basic need for affordable food." The survey also revealed a marked preference for biotech products develop locally to those that are imported.

Following press statements by the AgAttache and a series of workshops conducted by USAID funded NAPB for civil servants, policy makers, legislators and for the members of the media, the level of awareness of issues relating to agricultural biotechnology has improved somewhat. Most newspaper articles are well balanced and are devoid of misconceptions about biotechnology.

SECTION V. CAPACITY BUILDING AND OUTREACH

A. U.S. Government or USDA Funded Outreach activities

Over the last five years, the USDA has helped to fund scientists to work on biotechnology at the IITA, under its technical assistance program. In addition, the AgAffairs Office in Lagos utilized the Cochran Fellowship Program to provide training in agricultural biotechnology in the U.S. to four Nigerian scientists during the same period. In 2005, AgAffairs Office in Lagos also nominated a journalist to participate in a biotechnology seminar sponsored by the US Grains Council.

In 2004, agricultural biotechnology in Nigeria received a boost with the launch of two linked initiatives funded by the USAID. These are the West African Biotechnology Network (WABNET) and the Nigeria Agricultural Biotechnology Project (NABP), implemented by CGIAR's International Institute for Tropical Agriculture (IITA), in close collaboration with

Tuskegee University. Signed on August 21, 2003, NABP is a $2.1 million project to assist Nigeria in building the framework for decision-making that will facilitate access to the opportunities biotechnology offers and will ensure the safe and effective application of this technology to improve agriculture. A key element of the project is to improve implementation of bio-safety regulations; and, enhance public knowledge and acceptance of biotechnology.

Presently, the project has developed collaborative linkages and is providing facilities to some Nigerian universities/institutes to facilitate implementation; National Biotechnology Development Agency (NABDA) for biotech information dissemination; Sheda Science & Technology Complex (SHESTCO) for training of scientists; National Root Crops Research Institute (NRCRI) for plant transformation; Institute of Agricultural Research (IAR) for tissue culture and University of Agriculture, Abeokuta for advanced biotechnology training.

In 2004, the USAID sponsored four reporters on a biotech press mission to the United States.

B. Country Specific Needs

In order to assist the GON in its efforts to fast-track the creation of an enabling environment for biotechnology, Post would like to arrange an activity for high-ranking, policy level officers from the presidency, Ministry of environment, Agriculture, Science and Technology, Legislature, and academia. It is anticipated that the group will return to Nigeria with a renewed determination to move forward the process of creating an enabling regulatory environment for biotechnology.

Capacity building training is required for the personnel of the Ministry of Environment to be able to develop a biosafety protocol. SHESTCO requires up-to-date laboratory facilities to act as a national center of excellence that will be able to conduct research and assessment tests.

Post recommends the posting of a U.S. Government Scientist to Nigeria under the Embassy Science Fellows Program. The Scientist will be saddled with the responsibility of strengthening institutional linkages for the development of biotechnology in Nigeria.

SECTION VI. REFERENCE MATERIAL

Nigeria Biosafety Guidelines 2001
Draft Nigeria Biosafety Bill 2005
Draft National Biosafety Framework
National Biosafety Policy

Copies of these documents are available in the AgAffairs office.

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